Telecon Notes for November 14, 2002

Participants

Jonathan Hammer (MITRE CAASD)

Andy Zeitlin (MITRE CAASD)

Stan Jones (MITRE CAASD)

Robert Manning (DoD)

Michael Petri (FAA WJHTC)

Ann Drum (MIT LL)

Jim Maynard (UPS-AT)

Tom Foster (Self for TRIOS)

Bill Morris (Raytheon)

Joel Wichgers (Rockwell Collins)

Stu Searight (FAA)

Steve Koczo (Rockwell Collins)

Roxaneh Chamlou (MITRE CAASD)

Agenda –Service Level Review

Jonathan noted that next week's WG4 meeting (Tuesday -Thursday, Nov 19-21) will be at the Rockwell Collins Offices in Arlington, VA. Meeting will start at 9AM.

Service Levels (SLs) – Tom Foster led discussion Service Level Strawman

In his proposal, Tom noted that Service Level categories were developed / grouped by the application categories denoted by PO-ASAS (Undefined, Airborne Traffic Situational Awareness, Airborne Spacing, Airborne Separation, and Airborne Self-Separation). This establishes a rough bound on the number of levels (Criticality is the key driver in these categories).

SL provides a broad grouping of performance capabilities. Intent of having SLs is to avoid need for numerous upgrades and certifications every time a new capability / application is sought.

Stan Jones inquired about the mapping of ADS-B Equipage Classes (A0-A3) to Service Levels. It was agreed that some mapping needs to be made, but it is premature to do this mapping until we have better defined Service Levels.

Section 2.2.1 – SL Characteristics

Characteristics pertain to the transmitting aircraft:

- NACp, NIC, SIL
- Need an indication of integrity (hazardous, misleading information) from transmitting aircraft.
- Latency

    Andy: Concerning Latency and Update Rate, Andy commented that while the ADS-B MASPS bound these values fairly closely, TIS-B will likely require greater variation in latency (e.g., due to SSR radar latency constraints). Jim Maynard noted that the ADS-B MASPS only provides a bound for the ADS-B reporting sub-system, and that we will also need an additional overall end-to-end ASA system latency requirement.

Discussion about formatting of SL sections and how they relate to our current Section 2 requirements tables. Talk about rolling-up or collapsing the requirements tables already being worked in how they relate to the SL definitions.

Jonathan – From his standpoint, Service Level is the highest level grouping of ASA application capabilities.

Michael P.– we need to define our reason for why we need Service Levels, before we can determine what factors / characteristics Service Levels are actually comprised of. Perhaps it is premature to define Service Levels at this point in time until the applications analyses are completed.

One suggestion is to have Service Levels that define performance parameters of sub-systems on transmitting aircraft, and then also an indication of what applications the system is capable off or operating in (capability codes, and operation mode codes).

From a documentation perspective, the Service Level portion of Chapter 2 would consist of a summary of performance requirements associated with Service Levels; later tables (those currently being developed by Jonathan) will provide additional, more detailed requirements that expand on the higher-level requirements given by Service Levels. In addition, these more detailed tables also capture requirements that are needed (but not necessarily announced) to support the specific applications.

Tom - Section 2.2 – Target of capabilities needed by my own aircraft to support an application.

Break

Jonathan briefly reviewed the current contents of the draft Chapter 2. From page 23 ASA Interfaces, Table 2-1 captures the information requirements on a per Service Level basis, where Service Levels represent a group of “similar” applications.

Jonathan – Packages and application categories are currently being defined in Europe / industry– these suggest implementation strategies and transition phases of deployment of applications. The group prefers “application categories” rather than “packages” for the ASA MASPS for grouping of application requirements.

Summary:

It appears that most of the group was temporarily in agreement with the following:

1. A high-level entity that encompasses and collapses all requirements, both for own-ship and for transmitted information.. The name for this may be “Service Level,” or “Application Category,” or something else.

   While this entity will incorporate all key and common requirements for an application set, individual applications may have additional requirements that are specified separately.
2. A definition at a lower level, that includes qualifications that are transmitted to other users. Some of the group thought that this was the term that was meant by “service level.”
3. A break-down of the transmitted attributes that are a part of “service level” as per (2) above, that are transmitted individually, such as NIC, NAC, and those that are encoded in a common capability indication, which may include things like certification level.

Obviously more work needs to be done on all this.